UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

OCT 2 3 2006

SUBJECT: ENFORCEMENT ACTION MEMORANDUM – Determination of Threat to Public Health, Welfare, or the Environment at the Georgia-Pacific Kalamazoo and Hawthorne Mills, Part of the Allied Paper Inc./Portage Creek/Kalamazoo River Site in Kalamazoo, Michigan

FROM: Sam Chummar, Remedial Project Manager/ Acting On-Scene Coordinator
Remedial Response Branch 1 – Remedial Response Section 1

TO: Richard C. Karl, Director
Superfund Division

THRU: Linda Nachowicz, Chief
Emergency Response Branch

I. PURPOSE

The purpose of this memorandum is to document the determination of an imminent and substantial threat to public health and the environment posed by the presence of wastes and soils contaminated with high concentrations of polychlorinated biphenyls ("PCBs") at two properties commonly referred to as the "Kalamazoo Mill" and the "Hawthorne Mill" (jointly, the "Mill Properties"). The Kalamazoo Mill is located at 2425 King Highway in the Township of Kalamazoo, Kalamazoo County, Michigan. The Hawthorne Mill has no known address, but is located adjacent to and immediately east of the Kalamazoo Mill. The Georgia-Pacific Corporation ("GP") currently owns both properties and, between 1967 and 2000, operated a paper manufacturing facility at the Kalamazoo Mill. The Mill Properties are part of the Allied Paper Inc./Portage Creek/Kalamazoo River Site (the "Site"), which was listed on the NPL in 1990.

The removal action proposed herein includes the excavation of PCB-contaminated wastes and soils at concentrations above 10 ppm from several waste disposal areas located on the Mill Properties, and disposal of these wastes and soils at the A-Site portion of the Willow Boulevard/A-Site Landfill, Operable Unit #2 of the Site or, as appropriate, at an approved off-site disposal facility. Region 5 estimates that the total volume of waste material to be excavated and disposed is 35,000 cubic yards (cy). U.S. EPA anticipates that GP will conduct this removal action pursuant to an Administrative Order on Consent ("AOC") currently being negotiated. Due to the release and threatened release of hazardous substances to the environment from the Mill Properties, and the public health threats associated with such releases, this removal action is considered time-critical.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # MID006007306

Physical Location

The Kalamazoo Mill is located approximately two miles east of the downtown area of the City of Kalamazoo. It is bounded by King Highway to the south, railroad tracks and commercial property to the north, the former Hawthorne Mill to the east, and by the Kalamazoo River to the southwest and west. The Hawthorne Mill is located immediately adjacent to and east of the Kalamazoo Mill. It has no known address, but is bounded by King Highway to the south and an undeveloped wooded area to the east. Both properties are bounded by Michigan Avenue to the north.

According to the Region 5 Superfund Environmental Justice (EJ) Analysis for Michigan, the average minority percentage is 21% and the average low income percentage is 29%. To meet EJ criteria, the area within a one mile radius of the site must have a population that is, at minimum, twice the state average minority and/or average low income percentage. There are approximately 6,733 people who live within a one mile radius of the Mill Properties. The minority population is estimated to be 44% and the low income population is estimated to be 49% (See Attachment 2 – Region 5 Superfund EJ Analysis). Therefore, this site meets the Region's EJ criteria based on demographics as identified in Region 5's "Interim guidelines for Identifying and Addressing a Potential EJ Case," June, 1998.

Site Background

Kalamazoo Mill

The Kalamazoo Mill was originally owned by the Wolverine Paper Company until it was sold to the Kalamazoo Paper Company in 1899. GP acquired the property in 1967. The original facility consisted of five mills: three paper mills and two coating mills. Mills 1, 2, and 3 were paper mills, while mills 4 and 5 were used for finishing and converting operations. GP razed Mill 2 in the early 1970s and Mill 5 in the 1980s. Mills 1 and 3 were used as paper mills and Mill 4 as a storage area until GP closed the facility in 2000.

The Kalamazoo Paper Company started deinking waste paper at Mills 1 and 3 in the 1950s. As a result of the deinking process, PCBs became integrated into new paper products, and also became part of the mills' waste streams. Wastewater from this process was discharged directly to the Kalamazoo River until 1954, when the construction of a primary clarifier and on-site dewatering lagoons was completed. Subsequently, the primary clarifier effluent (overflow) was discharged to the Kalamazoo River, while the underflow was pumped into two adjacent lagoons. A clarifier and three lagoons were used during this period to treat and dispose of wastewater from Mill 2. The King Highway dewatering lagoons were constructed on the opposite side of the river in the late 1950s, at which time the mill operators began using the onsite dewatering lagoons as emergency lagoons. In 1980, the onsite dewatering lagoons were partially excavated, filled in with soil, and their use was discontinued.

Hawthorne Mill

Papermaking operations began at the Hawthorne Mill in 1912. Owners previous to GP manufactured high grade bond, ledger, and printing paper, mainly from rag stock, and disposed of waste paper residuals in an area generally referred to as the "Oxbow Area." The Oxbow Area is surrounded on all sides by the Kalamazoo River, and is subject to periodic inundation. The record is unclear as to whether or not deinking occurred at the Hawthorne Mill. Newspaper reports indicate that the mill engaged in deinking, but the process is inconsistent with types of papers known to have been produced at the mill. PCBs have been detected in a waste sludge discharge pipe that runs from the former location of a clarifier to the Oxbow Area.

GP purchased the Hawthorne Mill from Gould Paper in 1976, and subsequently dismantled the mill buildings, and utilized the space for parking. GP never conducted any papermaking operations at the Hawthorne Mill.

Previous Studies and Other Response Actions

Pursuant to an agreement (Final Order No. DFO-ERD091-001) with the Michigan Department of Natural Resources in 1991, GP initially investigated its Kalamazoo Mill property to assess the nature and extent of PCB impacts associated with the Mill's five former onsite lagoons (Mill Lagoons #1 through #5), a former wastewater treatment system clarifier, and storm water runoff. GP conducted this investigation in 1993 as part of the Superfund Site Remedial Investigation (RI) activities, and performed follow-up sampling in June 1996.

Based on the findings of the RI, remedial actions at the five former Mill Lagoons commenced in 1999 as part of the King Highway Landfill Operable Unit 3 (KHL-OU#3) response activities. During work at the KHL-OU#3, GP discovered deteriorating metal drums in the heavily vegetated area adjacent to the river to the south and west of Mill Lagoons #4 and #5. This area has since been referred to as the "Refuse Area." In the initial response at the Refuse Area in June 1999, one of the deteriorating drums was removed and disposed of at the EQ Landfill in Detroit, Michigan. Additionally, GP disposed of approximately 10 cy of material excavated from beneath and adjacent to the drums (*e.g.*, drum remnants, soil, white crystals) in a local Type II landfill.

In the fall of 2002, as part of an effort to evaluate the sale potential of several properties on the company's books, GP conducted the Kalamazoo Mill Property Divestiture Study. Soil and groundwater samples were collected from areas at the Kalamazoo Mill where available information suggested the potential for PCB-containing materials to be present. PCBs were detected in the Refuse Area, in a wastewater pipeline, and in soils beneath an electrical transformer pad. These results are summarized below.

Refuse Area

During removal and disposal of the drums found in the Refuse Area in June of 1999, GP observed a variety of construction debris and scrap metal in a number of locations, some of

which were visible at the surface. As part of the Kalamazoo Mill Property Divestiture Study, this area was identified as a potential PCB-containing area. In November and December 2002, two soil borings and seven test pits were installed in the Refuse Area, and more than 30 soil samples were collected for PCB analysis.

The seven exploratory test pits were excavated to the depth of the water table. In all cases, the interface between disturbed soils/fill materials and undisturbed native soils was encountered above the groundwater table. Soil sample collection from the Refuse Area test pits was biased toward apparent residuals, if present. In several test pit locations, isolated pockets of residuals were found and discretely sampled. PCB concentrations in the test pit samples ranged from non-detect to a maximum of 330 milligrams per kilogram (mg/kg). The maximum result of 330 mg/kg was for a sample collected from a deposit of residuals located 2.5 to 3 feet below ground surface (bgs).

Additionally, in December 2002 GP collected groundwater samples from two monitoring wells located within the Refuse Area. Neither sample contained detectable levels of PCB at the reporting limit of 0.05 micrograms per liter (μg/L).

Wastewater Pipeline Residuals

The Kalamazoo Mill Property Divestiture Study also included the collection of seven soil samples from a wastewater pipeline and a wet well located between the former Mill Lagoons and Mill #1. The wet well is located near the former Mill Lagoons at the end of the wastewater pipeline, which runs northwest from Mill #1.

PCB concentrations in the seven samples associated with the wastewater pipeline and the wet well – which were biased toward apparent residuals where present – ranged from non-detect to a maximum of 31.1 mg/kg in a sample of residuals, scraped from the inside of the wastewater pipeline.

Electrical Transformer Pad Soils

Soil samples were collected from a test pit excavated at the location of a former transformer pad at Mill #1 where stained soils were observed. Four samples were collected between depths of 0 and 5 feet bgs. In the 0 to 1 foot bgs interval, PCBs were detected at a concentration of 2.6 mg/kg. PCBs were not detected in the other three samples.

Oxbow Area of the Hawthorne Mill

During RI activities, GP discovered waste paper residuals in the Oxbow Area of the Hawthorne Mill. GP collected additional samples from this area as part of the 2000 Focused Soil and Sediment Sampling Program conducted for the Superfund Site. PCBs were detected in two samples in the 0.5- to 1-foot layers (220 mg/kg and 2.4 mg/kg). Based on this information, additional sampling was conducted as part of the Kalamazoo Mill Property Divestiture Study to further assess the nature and extent of PCBs in the Oxbow Area. The PCB concentrations in the

Oxbow Area ranged from non-detect to 490 mg/kg. The maximum result of 490 mg/kg was for a sample collected from a deposit of residuals located 0 to 0.5 feet bgs.

A-Site Landfill

Between 1975 and 1987, GP utilized the A-Site Landfill portion of the Willow Boulevard/A-Site (WB/A-Site) Operable Unit #2 for the disposal of dewatered waste residuals from manufacturing operations at the Kalamazoo Mill. MDEQ completed the RI/FS for the Willow Blvd./A-Site OU#2 in November of 2004, and U.S. EPA issued a Proposed Plan for the operable unit on July 15, 2005. The Agency proposed to consolidate and contain PCB-contaminated wastes, soils and sediments in the landfill areas, and install a landfill cap compliant with state and federal applicable and relevant and appropriate requirements ("ARARs"). Region 5 issued a Record of Decision for Operable Unit #2 on September 27, 2006.

III. Threats to Public Health, Welfare, or the Environment, and Statutory and Regulatory Authorities

Conditions at the Mill Properties currently exist which, if not addressed by implementing the response action documented in this Action Memorandum, may present an imminent and substantial endangerment to public health or welfare or the environment. The conditions at the site meet the criteria for a removal action as set forth in the NCP, Section 300.415(b)(2), specifically:

§ 300.415(b)(2)(i): Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substance or pollutants or contaminants;

This factor is present at the Mill Properties because of the existence of high PCB levels in soils near the surface that could potentially come into direct contact with surrounding human and animal populations. The Mill Properties are located in an urban setting, with a mixed industrial and residential population base. While no evidence of trespassing has been found, the area could be used illegally as a recreational area. The elevated levels of PCBs in soils near the surface create a direct contact threat to trespassers and wildlife.

Threatened releases of PCBs into the Kalamazoo River could affect human populations and sensitive aquatic receptors (mink) that consume fish that uptake PCBs in the aquatic environment. A fish advisory has been in effect for portions of the Kalamazoo River, including that portion of the River adjacent to the Mill Properties, since 1977. In April 2003, the Michigan Department of Natural Resources (MDNR) completed work on the human health risk assessment and ecological risk assessment for the Site, which was funded by Region 5. The human health risk assessment concluded the most significant exposure pathway to humans is through the consumption of the fish. The ecological risk assessment concluded that PCB contamination at the Site presents a high to moderate ecological risk for eight animal species, particularly those sensitive ecological receptors such as mink whose diet consists primarily of fish that uptake PCBs or other prey (the American Robin) residing in contaminated floodplain areas.

Table A-1 of the study lists six pages of endangered vertebrates, invertebrates and vascular plant communities potentially affected by the PCB-contamination at the Site.

§ 300.415(b)(2)(ii): Actual or potential contamination of drinking water supplies or sensitive ecosystems;

The Kalamazoo River flows into Lake Michigan, which is considered to be a sensitive ecosystem. The contamination or potential contamination of the Kalamazoo River contributes to contamination of this sensitive ecosystem. This threat exists at the Site due to the high concentration of PCBs in soils near the surface with the potential to migrate to the Kalamazoo River through various mechanisms.

§ 300.415(b)(2)(iv): High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

This factor is present at the Mill Properties due to the existence of high PCB levels in soils near the surface that could migrate. Deposited paper waste, sediment and peat layers have been known to spall and slough due to undercutting by active stream flow in other areas of the Site. These processes may have occurred and/or threaten to occur at the Refuse and Oxbow Areas. The Oxbow Area is located within the 100-year floodplain of the Kalamazoo River, and is susceptible to periodic inundation, creating a threat of migration of PCBs into the sediments and surface water of the Kalamazoo River system. Similarly, during high water events, a portion of the Refuse Area is inundated with water from the Kalamazoo River, creating a threat of migration of PCBs from the contaminated floodplain soils of the Refuse Area into the sediments and surface water of the Kalamazoo River.

Data suggests that PCB migration from these areas may have already occurred. PCB levels in sportfish (*e.g.*, bass) from the area of the Kalamazoo River in the vicinity of the Mill Properties average approximately 20 times those levels established by the State of Michigan to protect women and children. Risk assessments regarding fish consumption from the area indicate non-cancer risks (*e.g.* reproductive and immune system effects) ranging from 15 to 98 times acceptable exposure levels. Cancer risks exceed 1 in 10,000 and may be as high as 1 in 1,000.

§ 300.415(b)(2)(v): Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

This factor is present at the Mill Properties due to the presence of contaminated soils that are subject to inundation by the waters of the Kalamazoo River on a regular basis during high water events. During such an event, river water would be in direct contact with contaminated soils, which in turn, would cause the downstream transport of contaminants.

IV. Endangerment Determination

Given the site conditions at the Mill Properties, the nature of the hazardous substances there, and the potential exposure pathways described above, actual or threatened releases of hazardous substances from the Mill Properties, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

PCBs are hazardous substances as defined by Section 101(14) of CERCLA, and are regulated pursuant to 40 C.F.R. Part 761 of the Toxic Substance Control Act. U.S. EPA has determined that PCBs are probable human carcinogens.

V. Proposed Actions

The proposed excavation of PCB-contaminated wastes and soils from certain areas of the Mill Properties, and disposal of such wastes and soils, as appropriate, in the A-Site Landfill or off-site, will mitigate the public health threat posed by direct human and wildlife contact. Excavation and containment will also mitigate the threats posed by the potential release of PCBs to the Kalamazoo River.

The OSC proposes that GP undertake the following actions to mitigate threats posed by the presence of hazardous substances within the Mill Properties:

Non – Area Specific Actions

1. Prepare and implement a Health and Safety Plan (HASP);
2. Prepare a Sampling Analysis Plan (SAP) Addendum;
3. Prepare a Quality Management Plan; and
4. Prepare a Post-Removal Site Control Proposal;
5. Prepare a list of applicable or relevant and appropriate requirements (ARARs) that may be achieved to the extent practicable.

The SAP addendum, Quality Management Plan, Post-Removal Site Control Proposal, and ARAR list are subject to review and approval by Region 5.

Area Specific Actions

Refuse Area

1. Excavate material containing PCBs above 10 ppm, the performance standard for this removal action. The performance goal for this removal action is 1 ppm.
2. Characterize/segregate material.
3. Dewater saturated material as needed.
4. If U.S. EPA determines that disposal of the excavated material, or any portion thereof, is compatible with the remedy selected for the A-Site Landfill, then GP shall consolidate excavated material with wastes currently at the A-Site Landfill; all wastes determined to be incompatible with the anticipated future remedy at the A-Site

Landfill shall be disposed of off-site in accordance with all applicable federal and state regulations.
5. Perform confirmation sampling.
6. Restore area.
7. Construct erosion controls.

Transformer Pad Area

1. Excavate material containing PCBs above 10 ppm, the performance standard for this removal action. The performance goal for this removal action is 1 ppm.
2. Characterize/segregate material.
3. Dewater saturated material as needed.
4. If U.S. EPA determines that disposal of the excavated material, or any portion thereof, is compatible with the remedy selected for the A-Site Landfill, then GP shall consolidate excavated material with wastes currently at the A-Site Landfill; all wastes determined to be incompatible with the anticipated future remedy at the A-Site Landfill shall be disposed of off-site in accordance with all applicable federal and state regulations.
5. Perform confirmation sampling.
6. Restore area.

Wastewater Pipeline Area

1. Excavate pipeline and wet well.
2. Characterize/segregate material.
3. Dewater saturated material as needed .
4. If U.S. EPA determines that disposal of the excavated material, or any portion thereof, is compatible with the remedy selected for the A-Site Landfill, then GP shall consolidate excavated material with wastes currently at the A-Site Landfill; all wastes determined to be incompatible with the anticipated future remedy at the A-Site Landfill shall be disposed of off-site in accordance with all applicable federal and state regulations
5. Perform confirmation sampling.
6. Restore area.

Oxbow Area

1. Construct erosion controls.
2. Excavate material containing PCBs above 10 ppm, the performance standard for this removal action. The performance goal for this removal action is 1 ppm.
3. Characterize/segregate material.
4. Dewater saturated material as needed.
5. If U.S. EPA determines that disposal of the excavated material, or any portion thereof, is compatible with the remedy selected for the A-Site Landfill, then GP shall consolidate excavated material with wastes currently at the A-Site Landfill; all wastes determined to be incompatible with the anticipated future remedy at the A-Site Landfill shall be disposed of off-site in accordance with all applicable federal and state regulations.

6. Perform confirmation sampling.
7. Restore area.

A-Site

1. Construct erosion controls.
2. Cover the PCB-contaminated soil and residuals in a manner that Region 5 determines will be protective of human health and the environment until the final remedy for the A-Site is implemented.

After excavation, if confirmatory sampling demonstrates that the performance standard of 10 ppm has not been met, additional excavation and confirmation sampling will be required. In the event that the performance goal of 1 ppm is not met, Region 5 will evaluate whether additional excavation and confirmatory sampling is appropriate under circumstances presented at the time and place the sample is obtained.

As noted above, Region 5 anticipates that GP will conduct this removal action under the terms of an AOC currently being negotiated. GP estimates the cost of the work to be performed at $2 million. In the event negotiations fail, Region 5 will perform a detailed cost estimate for the proposed removal action.

Applicable or Relevant and Appropriate Requirements

On March 27, 2006, Region 5 sent a letter to Paul Bucholtz of MDEQ requesting state ARARs for the proposed removal action. All federal and state ARARs will be complied with to the extent practicable. Pursuant to the terms of the (as yet, draft) AOC, GP will identify the ARARs that will be achieved by the work in its first monthly progress report. The list of ARARs is subject to approval by U.S. EPA.

Transition from Removal to Remedial Response Activities

40 C.F.R. § 300.415(g) requires that, if U.S. EPA determines that a removal action will not fully address the threat posed by the release hazardous substances, and that the release may require a remedial action, then the Agency must ensure an orderly transition from removal to remedial response activities. Because this removal action may not fully address the threat to human health and the environment presented by the release of PCBs at and from the Mill Properties, a transition from removal to remedial response activities may be necessary. Any such transition will include the following:

Satisfaction of the PCB Remediation Waste Rule ARAR

U.S. EPA currently believes that most of the wastes to be excavated from the Mill Properties will be disposed of in the A-Site Landfill portion of the Willow Blvd./A-Site Landfill Operable Unit #2 of the Site. The relevant portions of the PCB Remediation Waste Rule, 40 C.F.R. § 761.61 *et seq.*, are ARARs for both this removal action and the OU#2 remedy. As part of its review of the draft Record of Decision for OU#2, the Region 5 TSCA program evaluated the appropriateness

of permanent consolidation and disposal of the Mill Properties' PCB wastes in the A-Site Landfill. US EPA's issuance of the ROD for OU #2 represents the necessary risk-based disposal approval for this response action.

Final Remedial Action on Floodplains and Mill Properties

With regard to the floodplains associated with the Refuse Area, and the Oxbow Area, Region 5's remedial determination will occur in connection with the remedy decision for the Kalamazoo River Operable Unit #5 of the Site. With regard to any remaining hazardous substances at the Mill Properties, Region 5 is currently evaluating the extent to which additional RI/FS or other response activities are necessary. The confirmation sampling to be conducted as part of this removal action will provide Region 5 with valuable information about the nature and extent of PCBs remaining at the Mill Properties subsequent to the removal action. The actions taken during this removal will not preclude further response actions with more stringent performance standards.

VI. Expected Change in the Situation Should Action Be Delayed or Not Taken

Continued risk to public health and the environment will result if no action or delayed action ensues. Delayed action increases the likelihood that human and/or wildlife populations with access to the area will come into direct contact with PCB-contaminated residuals and soils. Because PCBs are bioaccumulative, intermittent trespassers exposed to PCBs at the Mill Properties may suffer increased body burdens of PCBs. Bioaccumulative effects may also be seen in upper trophic level ecological receptors from ingestion of contaminated prey.

VII. Outstanding Policy Issues

No outstanding policy issues have been identified in relation to the Mill Properties.

VIII. Enforcement

GP, the current owner of the Mill Properties, is expected to conduct the time critical removal action. Region 5 approved the Work Plan submitted by GP for this removal action on August 16, 2006. Region 5 anticipates negotiation of the AOC to be concluded in the near future, and expects that GP will perform the proposed response promptly and properly.

For administrative purposes, information concerning the enforcement strategy for this removal action is contained in the confidential Enforcement Addendum.

IX. Recommendation

This decision document represents the selected time-critical removal action for the Georgia-Pacific Kalamazoo and Hawthorne Mills, which are located in the Township of Kalamazoo, Kalamazoo County, Michigan, and which also comprise a part of the Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site. The removal action has been developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the

Administrative Record for the removal action, an index of which is attached to this Action Memo. Conditions at the Kalamazoo and Hawthorne Mills meet the criteria of Section 300.415(b)(2) of the NCP for a removal action, and I recommend your approval of the proposed removal action. You may indicate your decision by signing below.

APPROVE: Richard C Karl DATE: 10-27-c
Director, Superfund Division

DISAPPROVE: _____ DATE: _____
Director, Superfund Division

Attachments:
1. Administrative Record Index
2. Region 5 Environmental Justice Analysis
3. *Confidential* Enforcement Addendum

cc: D. Chung, U.S. EPA, 5104A
M. Chezik, U.S. DOI, w/o Enf. Addendum
Steven E. Chester, Director, Michigan DEQ, w/o Enf.Addendum
Michael Cox, Michigan Attorney General, w/o Enf. Addendum

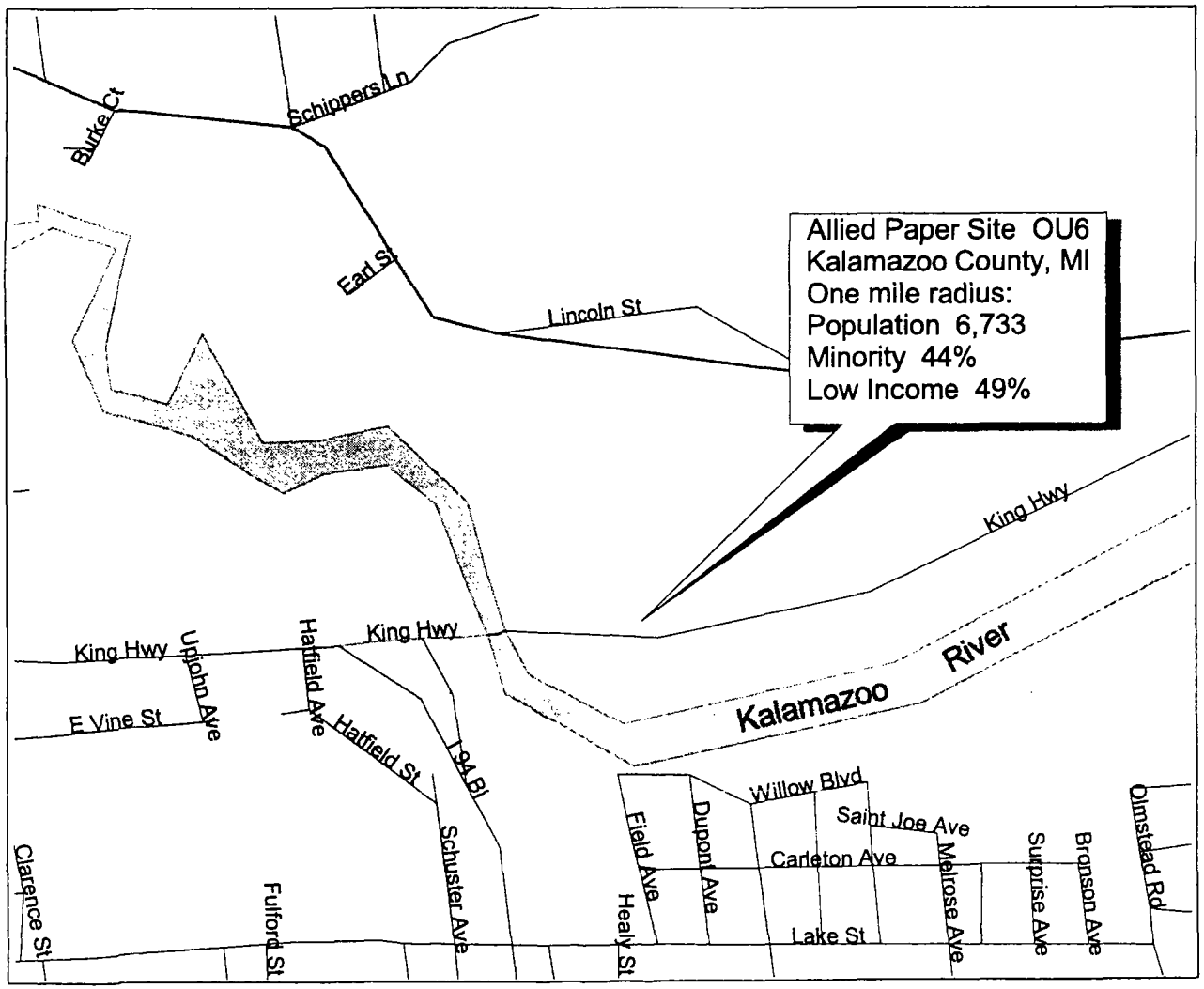
BCC PAGE

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

(REDACTED 1 PAGE)

Region 5 Superfund EJ Analysis

Allied Paper Site OU6 Kalamazoo, MI



State of Michigan averages:
Minority: 21%
Low Income: 29%

U.S. EPA Region 5
Environmental Justice Case Criteria
for State of Michigan

Minority: 42% or greater

Low Income: 58% or greater

Date of Map: 10/20/06

Source of Map: Census 2000 Database/
ArcView 3.0

ENFORCEMENT CONFIDENTIAL ADDENDUM

ALLIED PAPER/PORTAGE CREEK/KALAMAZOO RIVER SITE
GEORGIA-PACIFIC KALAMAZOO MILL AND HAWTHORNE MILL

(REDACTED 2 PAGES)

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

ATTACHMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
ALLIED PAPER/PORTAGE CREEK/KALAMAZOO RIVER SITE
GEORGIA-PACIFIC KALAMAZOO MILL AND FORMER HAWTHORN MILL
OPERABLE UNIT #6
KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN

ORIGINAL
OCTOBER 2, 2006

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	05/28/70	Blasland, Bouck & Lee, Inc.	File	Historical Aerial Photograph of the Former Hawthorne Mill	1
2	07/00/92	Kalamazoo River Study Group	U.S. EPA	Report: Allied Paper, Inc./Portage Creek/ Kalamazoo River Superfund Site Description of the Current Situation (Volumes 1-7)	884
3	06/00/93	Blasland, Bouck & Lee, Inc.	U.S. EPA	RI/FS Quality Assurance Project Plan for the Allied Paper Site	665
4	07/00/93	Blasland & Bouck, Engineers/ Blasland, Bouck & Lee	U.S. EPA	RI/FS Field Sampling Plan for the Allied Paper Site	269
5	08/00/96	Blasland, Bouck & Lee, Inc.	U.S. EPA	RI/FS Technical Memorandum 15–Mill Investigation for the Allied Paper Site: Volume 1 of 2 (Text, Tables and Figures)	71
6	08/00/96	Blasland, Bouck & Lee, Inc.	U.S. EPA	RI/FS Technical Memorandum 15–Mill Investigation for the Allied Paper Site: Volume 2 of 2 (Appendices)	552
7	06/00/99	Camp Dresser & McKee	MDEQ	Final Baseline Ecological Risk Assessment for the Allied Paper/Portage Creek/ Kalamazoo River Site	170
8	07/00/99	Blasland, Bouck & Lee, Inc.	U.S. EPA	Remedial Action Turbidity Monitoring Plan for the Allied Paper Site	11
9	03/00/00	Blasland, Bouck & Lee, Inc.	U.S. EPA	Report: Response Activities Summary Former Georgia Pacific Corporation Mill Lagoons	27

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
10	04/00/00	von Gunten, B., MDEQ	Saugatuck-Douglas Library	Supplemental Kalamazoo River Sediment and Floodplain Soils Sampling Plan for the Allied Paper Site w/ Cover Letter	12
11	03/04/03	Blasland, Bouck & Lee, Inc.	U.S. EPA	Georgia-Pacific Kalamazoo Paper Mill Property Divestiture Study–Supporting Materials	66
12	04/00/03	MDEQ	File	Final Revised Human Health Risk Assessment for the Allied Paper/ Portage Creek/Kalamazoo River Site	181
13	11/00/04	Blasland, Bouck & Lee, Inc.	U.S. EPA	Remedial Investigation/ Focused Feasibility Study for the Willow Boulevard/ A-Site Operable Unit: Volume 1 of 4 (Text, Tables and Figures)	321
14	11/00/04	Blasland, Bouck & Lee, Inc.	U.S. EPA	Remedial Investigation/ Focused Feasibility Study for the Willow Boulevard/ A-Site Operable Unit: Volume 2 of 4 (Appendices A-E)	464
15	11/00/04	Blasland, Bouck & Lee, Inc.	U.S. EPA	Remedial Investigation/ Focused Feasibility Study for the Willow Boulevard/ A-Site Operable Unit: Volume 3 of 4 (Appendices F-H)	511
16	11/00/04	Blasland, Bouck & Lee, Inc.	U.S. EPA	Remedial Investigation/ Focused Feasibility Study for the Willow Boulevard/ A-Site Operable Unit: Volume 4 of 4 (Appendices I-P)	482
17	12/00/04	Blasland, Bouck & Lee, Inc.	U.S. EPA	Former Hawthorne Mill Oxbow Sediment Investigation	331
18	07/00/05	U.S. EPA	Public	Proposed Plan for Willow Boulevard/A-Site Operable Unit	10
19	09/30/05	Gross, K. & P. McGuire, Blasland, Bouck & Lee, Inc.	File	Memorandum re: Former Hawthorne Mill Supplemental Soil Investigation Activities Summary	27

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
20	10/00/05	Blasland, Bouck & Lee, Inc.	U.S. EPA	Draft Remedial Action Work Plan for the Georgia-Pacific Kalamazoo Mill Property and Former Hawthorne Mill Property	24
21	11/00/05	Blasland, Bouck & Lee, Inc.	U.S. EPA	Georgia Pacific Corporation Former Hawthorne Mill Investigation–Related Documents	258
22	12/15/05	Krawczyk, K., MDEQ	Kolak, S., U.S. EPA	Letter re: MDEQ Comments on the Draft Remedial Action Work Plan for the Georgia-Pacific Mill Property Operable Unit 6 at the Allied Paper Site	4
23	03/27/06	Kolak, S., U.S. EPA	Bucholtz, P., MDEQ	Request for ARARs for the Time-Critical Removal Action at the Georgia-Pacific Kalamazoo Mill and Former Hawthorne Mill Allied Paper Site	2
24	04/03/06	Kolak, S., U.S. EPA	Montney, P., Georgia-Pacific	Letter re: U.S. EPA Comments on the Draft Work Plan for a Time-Critical Removal Action at the Refuse Area at the Georgia-Pacific Kalamazoo Mill and Oxbow Area at the Former Hawthorne Mill Properties	2
25	05/00/06	Blasland, Bouck & Lee, Inc.	U.S. EPA	Draft Time Critical Removal Action Work Plan for the Refuse Area at the Georgia-Pacific Kalamazoo Mill Property and the Oxbow Area at the Former Hawthorne Mill Property	26
26	06/00/06	Blasland, Bouck & Lee, Inc.	U.S. EPA	Draft Quality Assurance Project Plan Addendum for the Time Critical Removal Action for the Refuse Area at the Georgia Pacific Corporation Kalamazoo Mill Property and the Former Hawthorne Mill Property	78
27	09/00/06	Blasland, Bouck & Lee, Inc.	U.S. EPA	Draft Health and Safety Plan for the Time Critical Removal Action for the Refuse Area at the Georgia Pacific Corporation Kalamazoo Mill Property and the Oxbow Area at the Former Hawthorne Mill Property	77

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
28	09/29/06	Chummar, S., U.S. EPA	File	Memorandum re: Data Gathered for Population Description for Georgia Pacific	6
29	09/27/06	U.S. EPA	Public	Record of Decision for the Willow Boulevard/ A-Site Operable Unit	124
30	00/00/00	Chummar, S., U.S. EPA	Karl, R., U.S. EPA	Enforcement Action Memo-random: Determination of Threat to Public Health, Welfare, or the Environment at the Georgia-Pacific Kalamazoo and Hawthorne Mills Part of the Allied Paper/Portage Creek/ Kalamazoo River Site **(PENDING)**	

LIABILITY PORTION OF THE ADMINISTRATIVE RECORD

THE FOLLOWING DOCUMENT HAS BEEN DESIGNATED AS CONFIDENTIAL BUSINESS INFORMATION-NOT FOR RELEASE AND PLACED IN THE LIABILITY PORTION OF THE ADMINISTRATIVE RECORD

1	06/00/01	AMEC E&C Services, Inc.	U.S. EPA	Response to Final Kalamazoo River Superfund Site Mediation General Site Information Ques-tionnaire Vols. I-III	300
2	09/00/02	Blasland, Bouck & Lee, Inc.	U.S. EPA	Draft Final King Highway Landfill Operable Unit Hydrogeologic Monitoring Plan for the Allied Paper Site	228